



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/753,591

01/03/2001

Jesse A. Jurens

1866

40158 7590 12/05/2007
WOODS FULLER SHULTZ & SMITH P.C.
ATTN: JEFFREY A. PROEHL
P.O. BOX 5027
SIOUX FALLS, SD 57117

EXAMINER

RODRIGUEZ, PAMELA

ART UNIT

PAPER NUMBER

3683

MAIL DATE

DELIVERY MODE

12/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/753,591

Applicant(s)

JURRENS, JESSE A.

Examiner

Pam Rodriguez

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-43 and 46-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-43 and 46-66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 9, 2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 38-43 and 46-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,129,634 to Harris in view of U.S. Patent No. 3,752,270 to Valdespino.

Regarding Claim 38, Harris discloses a suspension device (see Figure 1) capable of connecting to a frame of a vehicle and a swing arm on which a wheel of the vehicle is mounted having most all the features of the instant invention including: a housing 40 defining an interior, a shock absorber 20/30/14 mounted on the housing

(see Figure 1), the shock absorber including a rod 20 movably mounted on the housing 40 (at least through its connection to element 30 and element 26) such that at least a portion of the rod 20 extends into the interior of the housing and through the housing (see Figure 1 and the lower portion of rod 20 which extends through cylinder 18 and thus also through housing portion 40), a piston 14 positioned in the interior of the housing 40 and being mounted on the rod of the shock absorber to move with the rod (note that the piston is readable as being mounted on rod 20 at least through element 18, see also Figure 5 of the reference), an air bag 30 positioned within the interior of the housing 40 (see Figure 1), the air bag being constructed of an elastomeric material, the air bag 30 having a first end 28 mounted on the housing in the interior of the housing at element 32 and a second end 34 mounted on the piston 14 such that the piston, the housing, and the air bag collectively define an air chamber within the housing (see Figure 1).

However, Harris does not disclose that his housing completely encloses the air bag.

Valdespino is relied upon merely for his teachings of an air bag suspension system (see Figure 6) forming a shock absorber which includes at least one air bag 46, the air bag is completely enclosed within a housing assembly 41.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension system of Harris to include an air bag enclosed completely within a housing assembly as taught by Valdespino as an effective means of sealing the air bag from the environment. By

constructing the air bag to be fully enclosed within the housing assembly, outside dirt, debris, and other such contaminants would be prevented from damaging the air bag.

Regarding Claim 39, see ends 28 and 34.

Regarding Claim 40, see flange 32 and flange 34 and column 3 lines 55-58.

Regarding Claim 41, see portion 28 which receives a portion of an end cap 26 of the housing and portion 34 receiving piston 14.

Regarding Claim 42, see Figure 1.

Regarding Claim 43, see shock absorber 18 which inherently includes a hydraulic piston and a cylinder, at least a portion of the cylinder mounted in housing 40 and the piston would inherently be mounted on rod 20, wherein the rod is certainly capable of being configured to be mounted on one element of the frame or the swing arm and the cylinder is certainly capable of being mounted on the other of the frame or swing arm.

Regarding Claims 46, 47, and 66, see Claim 38 above and note how housing 41 of Valdespino shown in Figure 6 abuts against an entire circumference and entire length of air bag 46, when the air bag is fully extended as shown in the figure.

Regarding Claim 48, Harris discloses that a degree of pressurization of the pressurized air in the air-bag suspension member 10 is adjustable (see column 6 lines 13-31).

Regarding Claim 49, Harris inherently discloses that the air-bag suspension member is characterized by a support spring force which is a function of compression stroke.

Regarding Claim 50, see column 6 lines 13-31 of Harris.

Regarding Claims 51 and 53, Harris, as modified, discloses most all the features of the instant invention as applied above except for the specifics of the support spring force being a progressive function of compression stroke or an exponential function of compression stroke.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension member of Harris, as modified, so that the support spring force is either a progressive function or an exponential function of compression stroke as a matter of design preference dependent upon the desired damping characteristics of the suspension system. As long as the spring force is correlated to the compression stroke to provide adequate damping to the air bag system, their relationship to one another is arbitrary.

Regarding Claim 52, see column 6 lines 13-31 of Harris, where inherently this limitation would be true.

Regarding Claims 54 and 60, see Claim 48 above.

Regarding Claims 55 and 61, see Claim 49 above.

Regarding Claims 56 and 62, see Claim 50 above.

Regarding Claims 57, 59, 63, and 65, see Claims 51 and 53 above.

Regarding Claims 58 and 64, see Claim 52 above.

Response to Arguments

4. Applicant's arguments filed October 9, 2007 have been fully considered but they are not persuasive.

Firstly, applicant argues that the Valdespino patent does not mention any of the alleged benefits of the casing that are set forth in the rejection and are asserted to motivate the modification (i.e., sealing the air bag from the environment or protecting the air bag assembly from dirt, debris, and other contaminants).

In response to this, the examiner contends that these "alleged benefits" used in her rejection were gleaned from the structure of the air bag 46 and housing of Valdespino. The examiner feels that the structural teachings of the enclosed air bag of Valdespino would teach one of ordinary skill in the art that encasing the air bag completely within the confines of the shock absorber assembly would protect it from the outside environment and that this motivation provided in the rejection would not be beyond the realm of one of ordinary skill in the art to ascertain from the reference.

Applicant next argues that there is nothing in the Harris patent that states that a purpose of the partial restraining sleeve is to "shield and protect" the flexible member, so the Valdespino casing does not disclose an alternative means to better shield and protect the air bag.

In response to this, again, the examiner contends that the structural teachings of the Valdespino reference in encasing the air bag within the housing would motivate one of ordinary skill in the art, when apprised of the Harris patent, to better protect the air bag from the harmful effects of the shock absorber operating environment. And while

applicant is correct that the Harris patent does not make mention of his partial restraining sleeve shielding and protecting the flexible member present there, the fact remains that the sleeve would perform this function merely due to the nature of its construction. Therefore, since the Valdespino reference discloses a similar type of shock absorber assembly to that of Harris, the examiner maintains that the combination is still valid.

Next, applicant argues that the proposed modification of Harris with the selected feature of Valdespino eliminates the primary benefit of the Harris teaching (i.e., the creation of a "side acting force by use of a partial restraining sleeve that extends less than half way around the circumference of the air spring flexible member) for an alleged benefit that is not even mentioned in Valdespino. Applicant contends that nothing in the Valdespino patent suggests that there is a need to better shield and protect the bladder shown in Valdespino as alleged in the rejection. Applicant then surmises that an alleged alternative that eliminates the primary benefit expressed in the Harris patent is not a desirable or obvious alternative. Thusly, applicant concludes that modifying the Harris patent to include a housing member which completely encompasses the flexible member (as the examiner stated the Valdespino reference teaches) would eliminate this side acting force and would then teach away from the modification and thus completely eliminate the primary objection of the Harris patent.

In response to this, the examiner contends that the Valdespino reference is merely being relied upon to show that completely enclosing an air bag assembly within a housing is known and would provide an effective means of sealing the air bag from

the environment. While the examiner recognizes that the Harris patent designs his restraining sleeve to create a side acting force, the teachings of Valdespino would merely lead one of ordinary skill in the art to the conclusion that completely enclosing the air bag is a possibility and would protect the air bag assembly from dirt, debris, and other such contaminants. Contrary to applicant's remarks, the examiner does not conclude that the Valdespino reference would teach away from the objective of the Harris patent, but instead provide an alternative means to better shield and protect the air bag.

It is for these reasons that the rejections have been maintained.

Conclusion

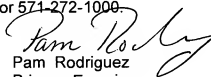
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pam Rodriguez whose telephone number is 571-272-7122. The examiner can normally be reached on Tuesdays 5:30 AM -4 PM and Wednesdays 5 AM -11 AM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rob Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
09/753,591
Art Unit: 3683

Page 9

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Pam Rodriguez
Primary Examiner
Art Unit 3683
12/4/07

PR
12/04/07